



## STATUS REPORT

# Progress and Improvements

DPW BUREAU/OFFICE Back River Waste Water Treatment Plant

7/22/2022

Parameter	Week Ending 7/8/22	Week Ending 7/15/22	Permit Limit	Meeting Requirements
Total Suspended Solids (TSS)	<5.0 mg/L	<5.0 mg/L	10 mg/L	Yes
Biological Oxygen Demand (BOD)	<2.0 mg/L	2 mg/L	10 mg/L	Yes
Total Phosphorus (TP)	.15 mg/L	.12 mg/L	.2 mg/L	Yes
Ammonia (NH <sub>3</sub> )	.1 mg/L	.2 mg/L	2.0 mg/L	Yes
Total Nitrogen (TN)	2.7 mg/L	3 mg/L	4.0 mg/L	Yes
E-Coli	3 MPN*/100 mL	3 MPN/100 mL	126 MPN/100 mL	Yes

\*MPN= Most Probable Number

## Personnel Updates

The Bureau has solicited referrals from multiple organizations (Veterans Administration, ROCA, Park Heights Renaissance, and Jump Start) to fill the immediate Maintenance Technician positions. We have hired Two (2) technicians starting in the next few weeks and we are committed to recruiting additional technicians promptly. To alleviate the administrative procurement burden on the Operations staff, the Bureau has added a Contracts Administrator and an Office Support Specialist II to the procurement team.

## Training and Education Updates

On July 21, 2022, DPW held a meeting with curriculum developers of the B'More WISE program. For reference, the B'More WISE program is a 6 - month training and educational program designed to prepare participants for the 3 - year water and waste water operator paid apprenticeship program. At the meeting, we discussed key enhancements and improvements to best train future operators.

Additionally, we have established an agreement with National Technology Transfer, Inc. (NTT) to provide training in electrical maintenance, mechanical maintenance, HVAC, electrical safety, codes and standards and automation. This will allow us 10-12 participants per class.

## Maintenance Updates

New recirculation and effluent pumps have been installed at the Acid Phase Reactor. The recirculation and effluent pumps assist in the digestion of the biosolids. Additionally, cleaning and repair of two in-ground digesters has begun. Repairs to the Return Activated Sludge and Waste Activated Sludge pumps are aiding in maintaining the appropriate biomass within the Biological Nutrient Removal (BNR) process and sending good quality biosolids for processing by the onsite drying facility. This work will also aid in the biosolids processing at the plant. The more solids are removed from the plant, the better the quality of our effluent.

## **Capital Improvement Updates**

The plant has 11 Primary Settling Tank (PST) used to settle inorganics and BOD. We currently have 3 of the 11 fully in service and operational. The plant will be able to properly settle the amount of solids with 4 or more tanks available to optimize the BOD removal at 60%. PST #1 returned to service on July 18, 2022. This makes three PSTs in full operation at the plant. By the end of the summer, we anticipate to have one more PST in operation and have the minimum amount recommended PSTs for ideal operations.

Additionally, a total of 25 sand filters are now online and in service. This is to capture any particulate solids that has made it through the previous processes. The Denitrification Facility (DNF) has 46 of 52 filters ready and available, though only 2 quads (or 26 filters) are needed for regular operations, to comply with the nutrient removal requirements of the permit. Overall, this update indicates progress given increase in available filters and more PSTs in operation.

## **Compliance**

Standards operating procedures for the process and effluent sampling, conducted by plant operators, were reviewed and updated to include improved quality control and quality assurance measures. Operation and sampling procedures were developed for new dissolved oxygen meters at Back River Waste Water Treatment Plant. Training of all operators is in process.

## **Summary**

DPW has made substantial progress toward full compliance at Back River Wastewater Treatment Plant. More specifically, suspended solids, biochemical oxygen demand, total phosphorus, and total ammonia nitrogen have decreased significantly since March 2022 and are all currently under permit limits from preliminary June reports. Maintenance and mechanical fixes are fully underway and have contributed to this success.

Accordingly, with these improvements S&P Global Ratings removed DPW from CreditWatch and revised its outlook to stable from negative on the City's stormwater and water systems due to the city entering into a consent order with the state of Maryland, which provides a framework for Back River Wastewater Treatment Plant achieving regulatory compliance. The wastewater system's senior lien debt is rated 'AA-' and its subordinate lien debt is rated 'A+'.